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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,038

04/11/2007

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025330-9001-02

1680

23409 7590 10/27/2009
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EXAMINER

MAI, HAO D

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

10/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,038	Applicant(s) DELMONICO, FRANK E.	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/31/2006, 06/07/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-16, 18-34, and 36-41, are rejected under 35 U.S.C. 102(b) as being anticipated by Marshall et al. (4,775,320).**

Regarding claims 1 and 23, Marshall et al. disclose a dental bridge comprising: a first structure being a ladder structure (Fig. 13) extending along an axis and connectable to at least one tooth, the ladder structure including opposing rails 90, 92, connected by a plurality of rungs 84, adjacent ones of the plurality of rungs defining an opening, e.g. 83, there between. The dental bridge further comprises a truss member 94 (Fig. 19) separate and connectable to the ladder structure, the truss member including a first truss member (bar 100) extending parallel to the axis and a second truss member 96 depending from the first truss member 100, the second truss member extending in a plane parallel to the axis.

As to claims 2-5 and 24-25, note that the ladder's rails 90 and 92 each includes a rail wall defining wall openings 80 there through (best shown in Fig. 11); wherein the wall openings communicate with at least an associated opening. As to claims 6-10 and 26, note that the second truss member 96 is integrally formed, i.e. forming one whole piece or adding essential part thereto, with the first truss member 100 (Fig. 19). Furthermore, the truss member 94 can include a separate third truss member exactly similar to the second truss member 96 depending

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on and connectable to the first 100 and second truss member 96. As to claims 11-14 and 29-32, Figure 19 and 23 show the truss member 94 having projections 44 being engageable in an opening on the upper surface of the ladder structure (Fig. 23). As to claims 15-16, 18-22, 33-34, and 36-40, Marshall et al. further teach of a third member 86 being a wire attachment or a support lingual-finger member capable of connecting to the anterior teeth. The wire 86 being connected to the ladder's rung at 88.

Regarding the method claim 41, Marshall et al. disclose all the structural limitations as claimed as detailed above. Furthermore, the steps of supporting a pontic, connecting the ladder structure to the truss member, forming a groove in a tooth, etc., are naturally carried out when using such dental bridge. Marshall et al. also disclose applying a bonding resin composite to bond/support the bridge to the teeth (Fig. 16; column 12 lines 20-49).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 17 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marshall et al.**

Marshall et al. disclose the invention substantially as claimed except for a third member being a perforated band attachment for anterior teeth. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Marshall et al. by extending one or both rails 90, 92, of the ladder structures or include additional portions of such

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rails to the dental bridge in order to accommodate more teeth. Note that the any additional rail wall included is considered to be equivalent to the claimed third member or perforated band wherein the perforations are formed by the openings 80 (Fig. 11). Such modification is merely a design choice well within the skill of an artisan depending on the need of the dental procedure at hand. *MPEP* § 2144.04.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Hao D Mai/
Examiner, Art Unit 3732**

**/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732**